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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,828	11/26/2003	Andrea Piana	09420001AA	9268

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EXAMINER

CAMERON, ERMA C

ART UNIT PAPER NUMBER

1762

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/723,828	<b>Applicant(s)</b> PIANA ET AL.	
	<b>Examiner</b> Erma Cameron	<b>Art Unit</b> 1762	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 December 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 10,14,15 and 79-106 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 10,14,15 and 79-106 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 95, 99, 100, 102 and 104 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a) Claim 95, line 3: there is no antecedent basis for “depleted flame retardant composition”.

b) Claim 95: it is not clear if the “depleted composition” is the same or different from the “excess composition” of claim 91.

c) Claim 99, line 13: there is no antecedent basis for “said first and second substrates”.

d) Claim 99, line 14: it is not clear which excess this is, the first or second?

e) Claim 99, line 20: it is not clear if the “plurality of fibers” is the same or different as the plurality of fibers of lines 3 and 4.

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f) Claim 100, line 2 and line 9: it is not clear which plurality of fibers this is – the ones on lines 3 and 4 of claim 99 or the fibers of line 20 of claim 99.

g) Claim 102: lacks a verb.

h) Claim 104: there is no antecedent basis for “constituents”.

i) Claim 104: “specified” is not defined and is therefore vague and meaningless.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 91-98, 106 and 15 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

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“...combining...to produce a flame retardant composition which has weight percents of constituents which is the same or approximately the same as said flame retardant composition used in said applying step...” appears to be new matter.

The examiner cannot find where in the specification as originally filed this appears.

The applicant is requested to cancel new matter.

### *Specification*

5. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract has been made even longer and the abstract appears to be over 150 words.

6. The use of the trademarks such as Airlex (page 90) has been noted in this application.

They should be capitalized wherever they appear and be accompanied by the generic terminology.

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Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

The applicant has corrected a few trademarks on page 90, but it appears there are other trademarks in the application that have not been corrected, such as Acronal on page 90. The applicant is requested to identify and correct ALL trademarks in the application.

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The rejection of Claims 39, 79-80 and 83-101 under 35 U.S.C. 103(a) as being unpatentable over Rock (5156890) is withdrawn because of the amendment filed 12/19/2005.

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9. The rejection of Claim 1-26, 28-38, 78 and 81-82 under 35 U.S.C. 103(a) as being unpatentable over Rock (5156890) taken in view of Inman (3944688) is withdrawn because of the amendment filed 12/19/2005.

10. Claims 10, 14-15, 79-80, and 83-106 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted state of the prior art taken in view of Rock (5156890).

The admitted state of the prior art is that closed loop dyeing machines for fibers are known and are available from sources known in the art (71:20- 72:12).

It would have been obvious to one of ordinary skill in the art to have used the closed loop dyeing machine to apply other chemical compositions to fibers, particularly compositions that could benefit economically from the recycling of the known closed loop dyeing machines.

'890 teaches applying a flame retardant solution (such as diammonium phosphate or ammonium phosphate (4:38-58)) to fabric (such as natural fibers and synthetic fibers such as rayon (1:14-23)) by immersing in a commercial washing machine (see Example 1) at for example 24 wt% (Example 1). Excess is removed by spinning the fabrics (i.e. centrifuging), followed by the reuse of the solution on additional articles, thus realizing significant cost savings (3:23-47). The fabrics appear to include those that have more than 5% non-thermoplastic material and up to 100%. There are no dyes or contaminating agents. The fabrics can conceivably be used to manufacture almost anything that uses fabrics in their manufacture, such as pillows.

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I would have been obvious to one of ordinary skill in the art to have scaled up the '890 process to the dyeing machines of the admitted state of the prior art because such machines are known as a method to apply chemical compositions to fibers on an industrial scale.

11. Claims 81-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over admitted state of the prior art taken in view of Rock (5156890) and further taken in view of Inman (3944688).

The admitted state of the prior art and '890 are applied here for the reasons given above.

Neither the admitted state of the prior art nor '890 teach an adhesion agent, stability agent, viscosity agent or wetting agent as part of a flame retardant composition.

'688 teaches an ester of (meth)acrylic acid as an adhesive or binder when applying a halogen or phosphate based flame retardant to a fabric, as well as a stabilizer such as PVA (2:45-3:65). The stabilizer colloids that '688 teaches, such as gum agar or pectin (3:21-26), would affect the viscosity. Wetting agents are conventional additives in compositions to coat fibers or fabrics.

It would have been obvious to one of ordinary skill in the art to have added the adhesion agent and stabilizer/viscosity agent of '688 to the '890 composition using the machines of the admitted state of the prior art because of the teaching of '688 that these additives are beneficial to the process.



***Conclusion***

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Erma Cameron whose telephone number is 571-272-1416. The examiner can normally be reached on 8:30-6:00, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



ERMA CAMERON  
PRIMARY EXAMINER

Erma Cameron  
Primary Examiner  
Art Unit 1762

February 6, 2006